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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/015,223	12/17/2001	Gerald Francis McBrearty	AUS920010862US1	6252

7590 06/07/2005  
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EXAMINER

VITAL, PIERRE M

ART UNIT PAPER NUMBER

2188

DATE MAILED: 06/07/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

<b>Office Action Summary</b>	<b>Application No.</b> 10/015,223	<b>Applicant(s)</b> MCBREARTY ET AL.	
	<b>Examiner</b> Pierre M. Vital	<b>Art Unit</b> 2188	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

#### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

#### Status

- 1) ☒ Responsive to communication(s) filed on 28 March 2005.
- 2a) ☒ This action is **FINAL**.                      2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

#### Disposition of Claims

- 4) ☒ Claim(s) 1-20 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-20 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

#### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 17 December 2001 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

#### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \*    c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.

#### Attachment(s)

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)  | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                                   | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)             |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____  |

## **DETAILED ACTION**

### ***Response to Amendment***

1. This Office Action is in response to applicant's communication filed March 28, 2005 in response to PTO Office Action mailed December 27, 2004. The Applicant's remarks and amendments to the claims and/or the specification were considered with the results that follow.

2. In response to the last Office Action, claims 1, 2, 6-7, 11-12, and 16-17 have been amended. No claims have been canceled. No claims have been added. As a result, claims 1-20 remain pending in this application.

3. The objection to the specification has been withdrawn due to the amendment filed March 28, 2005.

4. The objection to claim 6 has been withdrawn due to the amendment filed March 28, 2005.

### ***Response to Arguments***

5. Applicant's arguments with respect to claims 1-20 have been considered but are moot in view of the new ground(s) of rejection.

***Claim Rejections - 35 USC § 103***

6. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

7. Claims 1-5 and 11-15 are rejected under 35 U.S.C. 103(a) as being unpatentable over Taylor et al. (US6,654,830) and Belsan et al (EP 1012721).

As per claim 1, Taylor discloses a method of defining mirroring maps for use with different pieces of data comprising the steps of: creating the mirroring maps [*user build up storage in organized manner*; col. 27, lines 54-57]; naming the mirroring maps [*LUN maps are displayed as a list of names*; col. 29, lines 36-38].

However, Taylor does not specifically teach the mirroring map being an identification of one or more physical storage systems and one or more physical partitions in the one or more physical storage systems and allowing different pieces of data to be used with the mirroring map when the name of the mirroring map is associated with the different pieces of data as recited in the claim.

Belsan discloses a map that identifies the physical storage location of data and that checks the copying of a data file if the name used to identify the original data and the name used to identify the copy data are both mapped to the same physical location (col. 1, lines 31-52).

Since the technology for implementing a mirroring map in the manner claimed by applicant was well known as evidenced by Belsan, an artisan would have been motivated to implement this feature in the system of Taylor. Thus, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the system of Taylor to include a mirroring map being an identification of one or more physical storage systems and one or more physical partitions in the one or more physical storage systems and allowing different pieces of data to be used with the mirroring map when the name of the mirroring map is associated with the different pieces of data because it was well known to enable the processor to access a data file via different virtual addresses while only a single physical copy of the data file resides in the data storage subsystem (col. 1, lines 52-56).

As per claim 2, Taylor discloses the step of allowing different pieces of data to be used with the mirroring map when the name of the mirroring map is associated with the different pieces of data includes the step of associating a volume group in which the different pieces of data are to be stored with the mirroring map [*LUN map is a list of names and their associated data*; col. 29, lines 36-37; *mirroring algorithm maintains mirrored image of storage on multiple volumes*; col. 22, lines 10-13].

As per claim 3, Taylor discloses existing mirroring maps may be displayed when selecting a mirroring map to associate with a piece of data [*LUN map will show the existing list of LUNS*; col. 29, lines 37-43].

As per claim 4, Taylor discloses a mirroring map may be created for facilitating striping a piece of data [*a stripe partition can be exported as one LUN*; col. 28, lines 5-8].

As per claim 5, Taylor discloses a partition may be specified when storing data in a mirroring map [*LUN map allows sorting*; col. 29, lines 36-43].

As per claim 11, Taylor discloses an apparatus for defining mirroring maps for use with different pieces of data comprising: means for creating the mirroring maps [*user build up storage in organized manner*; col. 27, lines 54-57]; means for naming the mirroring maps.

However, Taylor does not specifically teach the mirroring map being an identification of one or more physical storage systems and one or more physical partitions in the one or more physical storage systems and allowing different pieces of data to be used with the mirroring map when the name of the mirroring map is associated with the different pieces of data as recited in the claim.

Belsan discloses a map that identifies the physical storage location of data and that checks the copying of a data file if the name used to identify the original data and

the name used to identify the copy data are both mapped to the same physical location (col. 1, lines 31-52).

Since the technology for implementing a mirroring map in the manner claimed by applicant was well known as evidenced by Belsan, an artisan would have been motivated to implement this feature in the system of Taylor. Thus, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the system of Taylor to include a mirroring map being an identification of one or more physical storage systems and one or more physical partitions in the one or more physical storage systems and allowing different pieces of data to be used with the mirroring map when the name of the mirroring map is associated with the different pieces of data because it was well known to enable the processor to access a data file via different virtual addresses while only a single physical copy of the data file resides in the data storage subsystem (col. 1, lines 52-56)

Claim 12 is rejected using the same rationale as for the rejection of claim 2 above.

As per claim 13, Taylor discloses existing mirroring maps may be displayed when selecting a mirroring map to associate with a piece of data [*LUN map will show the existing list of LUNS*; col. 29, lines 37-43].

As per claim 14, Taylor discloses a mirroring map may be created for facilitating striping a piece of data [*a stripe partition can be exported as one LUN*; col. 28, lines 5-8].

As per claim 15, Taylor discloses a partition may be specified when storing data in a mirroring map [*LUN map allows sorting*; col. 29, lines 36-43].

8. Claims 6-10 and 16-20 are rejected under 35 U.S.C. 103(a) as being unpatentable over Taylor et al. (US6,654,830) and Belsan et al (EP 1012721).

As per claims 6 and 16, Taylor and Belsan disclose the claimed invention as detailed per claims 1 and 11 above. However, Taylor and Belsan do not specifically teach a computer program product on a computer readable medium comprising code for performing the steps of claim 6.

However, one of ordinary skill in the art would have recognized that a computer product (i.e., floppy, CD-ROM, etc.) carrying program instructions for implementing a method is generally well known in the art, because it would have facilitated the transportation and installation of the method on other systems. For example, a copy of the Microsoft Windows operating system can be found on a CD-ROM from which Windows can be installed onto other systems, which is a lot easier than running a long cable or hand typing the software into another system. The examiner takes Official Notice of this teaching. Therefore, it would have been obvious to one of ordinary skill in



the art to put Taylor and Belsan's program on a computer readable medium, because it would have facilitated the transporting, installing and implementing of Taylor's program on other systems.

Claims 7 and 17 are rejected using the same rationale as for the rejection of claim 2 above.

As per claims 8 and 18, Taylor discloses existing mirroring maps may be displayed when selecting a mirroring map to associate with a piece of data [*LUN map will show the existing list of LUNS*; col. 29, lines 37-43].

As per claims 9 and 19, Taylor discloses a mirroring map may be created for facilitating striping a piece of data [*a stripe partition can be exported as one LUN*; col. 28, lines 5-8].

As per claims 10 and 20, Taylor discloses a partition may be specified when storing data in a mirroring map [*LUN map allows sorting*; col. 29, lines 36-43].

***Conclusion***

9. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the date of this final action.

10. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Applicant is required under 37 C.F.R. § 1.111(c) to consider these references fully when responding to this action. The documents cited therein teach mirror mapping of physical storages.

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11. The examiner also requests, in response to this Office action, support be shown for language added to any original claims on amendment and any new claims. That is, indicate support for newly added claim language by specifically pointing to page(s) and line no(s) in the specification and/or drawing figure(s). This will assist the examiner in prosecuting the application.

12. When responding to this office action, Applicant is advised to clearly point out the patentable novelty which he or she thinks the claims present, in view of the state of the art disclosed by the references cited or the objections made. He or she must also show how the amendments avoid such references or objections See 37 CFR 1.111(c).

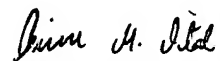
13. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Pierre M. Vital whose telephone number is (571) 272-4215. The examiner can normally be reached on 8:30 am - 6:00 pm, alternate Fridays off.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Mano Padmanabhan can be reached on (571) 272-4210. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

June 2, 2005



Pierre M. Vital  
Primary Examiner  
Art Unit 2188